REMARKS

Entry of the foregoing and reexamination and reconsideration of the subject application, as amended, pursuant to and consistent with 37 C.F.R. § 1.112, are respectfully requested in light of the remarks which follow.

Claims 1-5, 7-9 and 11-12 are currently pending. Claim 5 is withdrawn. Claim 1 has been amended as suggested by the Examiner to recite a cytokine binding to a cytokine receptor. Claim 7 has been amended to no longer depend on a canceled claim. Claim 11 has been amended to properly recite multiple dependencies, and to no longer recite non-elected subject matter regarding gene therapy. Basis for these amendments may be found throughout the specification and claims as-filed. Thus, no prohibited new matter is presented. Applicants reserve the right to file a continuation or divisional application directed to any subject matter deleted by way of the Amendment.

Objections to the Claims

Claim 11 is objected to as purportedly being in improper format. Claim 11 has been amended herein to appear in proper multiple-dependent format. Thus, this objection is obviated.

Claims 11 and 12 are objected to because the Examiner argues that they recite a non-elected invention. Claim 11 has been amended to recite "isolated cells" in order to remove reference to non-elected subject matter, *i.e.*, gene therapy. Claim 12 depends on claim 11. Thus, this objection is obviated.

Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 1-4, 7-9, 11 and 12 stand rejected under 35 U.S.C. § 112, second paragraph, as purportedly indefinite. Specifically, the Examiner has rejected claims 7-9, 11 and 12 because they purportedly depend upon canceled claim 6. Claim 7 has been amended herein to depend on claim 1. Thus, this rejection is obviated.

Claims 1-4 stand rejected because the Examiner argues that it is purportedly not clear as to whether the polypeptides have mutual affinity for each other or to another polypeptide. In addition, the Examiner argues that the phrase "being a cytokine" is redundant. Claim 1 has been amended herein as suggested by the Examiner, to recite the binding of the cytokine with the cytokine receptor. Thus, the subject matter of the claim would be clear to the skilled artisan, and this rejection is obviated.

Claims 11 and 12 stand rejected because it is purportedly not clear how incubating an expression plasmid with cells would influence the interaction between proteins. Applicants submit that this information would be clear to the skilled artisan as it is explained in the specification. Specifically, Applicants note that the plasmids and proteins of claims 11-12 are incubated with cells under conventional conditions. Further support and explanation may be found in Examples 1-5 of the present specification. Thus, this rejection is obviated.

Rejections under 35 U.S.C. § 103

Claims 1-4, 7-9, 11 and 12 stand rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Sui *et al.* (*PNAS* (1995) vol. 92), and further in view of Wong *et al.* (WO 96/04314 (1996)). The Examiner argues that Sui *et al.* disclose the administration of IL6/IL6-R complex, and that even if IL6 and the receptor were added separately, they would still form a complex before activating the cells.

In order to establish a case of *prima facie* obviousness, three basic criteria must be met: (1) there must be some suggestion or motivation to modify the reference or combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art reference(s) must teach or suggest all of the claim limitations. *See* M.P.E.P. §2142. Applicants respectfully submit that these criteria have not been met in the present Office Action.

Applicants submit that the cited references, in combination or alone, fail to provide suggestion or motivation to modify the reference or combine reference teachings, fail to provide a reasonable expectation of success, and fail to disclose or suggest all of the claim limitations. Specifically, Applicants respectfully submit that Sui *et al.* do not disclose administering a IL-6/sIL-6R complex to cells. According to the disclosure of Sui *et al.*, several factors (IL-6, sIL-6R, SCF, GM-CSF and G-CSF) are tested alone or in combination for their effect on the expansion of hemopoietic progenitor cells. Sui *et al.* then disclose that IL-6 and sIL-6R each alone, as well as the combination of IL-6 and sIL-6R, do not have any effect. Only the combination of IL-6, sIL-6R and SCF is

effective. Thus, Sui *et al.* only disclose using the combination of IL-6, sIL-6R and SCF and not the conjugate of the present invention, *i.e.,* a fusion protein of IL-6 and sIL-6R without SCF.

Regarding the secondary reference, Wong *et al.*, Applicants submit that this reference is irrelevant for a person skilled in the art looking to provide a product by which unbalanced interactions between proteins can be remedied, particularly in the case of an incomplete interleukin-6 receptor. Thus, it fails to remedy the deficiencies of the primary reference.

In summary, Applicants submit that the cited references alone or in combination neither teach nor suggest the present invention. Thus, Applicants request that this rejection be withdrawn.

CONCLUSION

In view of the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order. Such action is earnestly solicited.

In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: July 24, 2003

By: _____
Deborah H. Yellin
Registration No. 45,904

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620